

this the explanation, or does a crocodile require stones to aid its digestion in the same way that birds require sand?

HARDWAR, U. P.,  
9th January 1910.

H. W. FORSYTH, CAPTAIN, R. E.

No. XXVI.—REMARKS ON THE VARIETIES AND DISTRIBUTION  
OF THE COMMON GREEN WHIPSNAKE (*DRYOPHIS*  
*MYCTERIZANS*).

Since my article on the green whipsnake (*Dryophis mycterizans*) appeared in the Popular Treatise Series in this Journal (Vol. XVI, p. 542), further allusions to this snake have appeared from time to time in literature which I think deserve collation.

No less than five varieties may be recognised, four of these being colour varieties.

Variety *typica*. This is the common form. It is dorsally of a uniform leaf-green colour, and ventrally between the lateral white or yellow stripes which run down the whole belly length on to the tail, it is green of a lighter shade and peculiarly brilliant hue.

Variety *lepidorostralis*. Dr. Annandale (Mem. Asiatic, Soc. Bengal., Vol. I. No. 10, p. 196) alludes to a new variety which differs from *typica* in having the nasal appendage covered with small scales, such as occur in the species *pulverulentus*, only that they are larger (in this variety of *mycterizans*). That this is not a colour variety of *pulverulentus*, he states, is shown by the nasal appendage being shorter than the diameter of the eye. This variety appears to be peculiar to Bengal. The Superintendent in the Zoological Gardens, Calcutta, told Dr. Annandale that he frequently noticed this peculiarity among specimens from Midnapore. I saw such a specimen in the Zoo in Calcutta last time I visited it, and was allowed to remove it and inspect it closely. I have never seen such a specimen from any other part of our Indian Dominions. It is coloured exactly like *typica*. It is such a distinct variety that I suggest the name *lepidorostralis* for it.

Variety *sphrogaster*. This differs from *typica* in that the belly between the lateral ventral stripes is of a cinereous grey. The first allusion to such a specimen is that reported upon and figured by Dr. Russell in 1796 (Ind. Serp., Plate XIII).

I had a similar specimen brought to me in Trichinopoly in March 1896. Later I alluded in this Journal (Vol. XVIII, p. 783) to three specimens which I believed came from Burma, but which might possibly have been received with a collection from Ceylon. I am more than ever convinced that these specimens came from Burma because since then I have twice heard from Colonel G. H. Evans of similar specimens. In March 1908 he wrote of two such specimens that he had captured alive and examined, and in December of the same year told me he had acquired two others. All of these he had

encountered in burnt Kaing grass. In Russell's specimen the ventrals and subcaudals were 174+148, in my Trichinopoly example they were 179+138, and in three Burmese specimens they were 176+146?, 176+153, and 181+151.

Variety *rhodogaster*. In Vol. XVIII., p. 919 of this Journal I mentioned a new colour variety received by our Society from Shwebo, Upper Burma, which differed from *typica* in that the belly between the ventral lateral stripes was rose-pink. Since this I have received a similar specimen from Mr. W. A. Jacob, I.F.S., from Jalpaiguri, only that the colour on the belly in this case is a pinkish-buff. In the Shwebo example, the ventrals and subcaudals were 191+140? (tail broken), in the Jalpaiguri specimen which was a ♀ 201+148.

Variety *isabellinus*. This variety is uniformly buff or khaki colour above, and a similar colour only of a lighter shade on the belly between the two lateral stripes. Like the other varieties it appears to be rare. Boulenger (Catalogue 1896, Vol. III, p. 181) mentions it without specifying from where he had received it. I obtained a ♀ specimen from Paralai, near Valparai, Anamallay Hills, last year, the only one I have ever seen. It was one of four, the rest being of the typical variety. The ventrals and subcaudals were 168+136. These same shields in the other specimens were ♂ 173+154, ♀ 179+?, and ♀ ? 169+140. I suggest for this the name *isabellinus*. The species as a whole is distributed as follows.

It does not occur in the Indus Basin, nor seemingly in the Ganges Basin West of Purneah. (The solitary specimen recorded from Purneah which is in the Indian Museum was purchased, and may have been introduced, as Indian jugglers very frequently carry this snake about in their stock in trade). South of the Ganges Basin it is more or less common, but especially so in Southern India and Ceylon. On the Western side of Peninsular India it has been obtained as far North as Mount Abu (Sclater. The specimen is in the Indian Museum). On the East, Blanford (Journl. Asiat. Society, Bengal, Vol. XXXIX, p. 373) reported it common in Orissa and Bengal, and it would appear to be so towards the Gangetic Delta, judging from specimens in the Indian Museum. A specimen in the British Museum is recorded doubtfully from Assam. In the Irrawaddy—Salween Basins—it is not a very uncommon snake, and has been recorded as far North as Bhamo (Anderson, Ann. Zool. Res Yunnan, p. 826). Further East it occurs as far as Indo-China, but is not found anywhere in the Malayan Peninsula or Archipelago.

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CHITRAL, 9th February 1910.

No. XXVII.—NOTE ON THE BREEDING OF *ECHIS CARINATA*.

In his article on *Echis carinata*, Major Wall tells us (Society's Journal, Vol. XVIII, p. 537) that the records of the breeding of this snake are very meagre.